



FLETCHER CREEK IMPROVEMENT DISTRICT

Emergency Response Plan

Prepared: November, 2012. **Revised: Aug 2017**

(Revisions should be done yearly and whenever situations with the water system change.)

The purpose of this Emergency Response Plan is to list only those actions which must be carried out immediately to deal with specific emergency situations. Longer term solutions or activities can be developed and carried out after the initial actions have been completed and in consultation with experts, as necessary.

CONTACT LIST:

FCID Board:

- Laurie Hartland, Co-Chair 250-353-2966
- Lance McLaren, Co-Chair 250-353-2963
- Tina McLaren, Trustee 250-353-2963
- David Sheppard, Trustee 250-353-2197
- Dan Knight, Secretary/Treasurer 250-509-4215

FCID Maintenance:

- Brad Hartland 250-353-2966
- Alan Davidson 250-777-1604

Phoners:

- Pat Gibbings 250-353-2939
- Anne Tellam 250-353-7572
- Dan Knight, if required 250-509-4215

E-mailers:

- Dan Knight 250-509-4215
- Laurie Hartland, if required 250-353-2966

Interior Health:

- Renee Ansel, Environmental Health Officer, Interior Health Authority,
2nd Floor, 333 Victoria Street, Nelson, BC V1L 4K3
Ph: 250-505-7220, Fax: 250-505-7211
Email: Renee.Ansel@interiorhealth.ca

BC Ministry of Environment and Forests

- Environmental Emergencies: **1-800-663-3456**

NOTE: Call this number first to activate the RDCK Emergency Operations Centre.

Call if more than the normal turbidity in spring or during heavy rains is observed, i.e. unusually muddy water, and there is a concern of possible slides upstream.

(Environmental emergencies include hazardous or toxic spills, discharges, emissions, as well as dyke and dam failures, debris flows and floods.)

RDCK Emergency Operations Centre (EOC):

- RDCK Emergency Operations Centre (rotating staff)
Box 590, 202 Lakeside Drive, Nelson, BC V1L 5R2
Ph: 250-352-7701
- Nora Hannon, Emergency Preparedness Service Coordinator for Kaslo and Area D,
Ph: 250-352-8177, Fax: 352-9300, Cell: 250-551-0917
Email: nhannon@rdck.bc.ca
- Andrew Bellerby, Emergency Services General Manager
Ph: 250-352-1507, Cell: 250-551-2641
Email: abellerby@rdck.bc.ca
- Medical Health Officer, EMERGENCY ONLY!!! 1-866-457-5648

Contractors:

- Small excavator for near surface work:
Daryl Dertell 250-353-2971
Ian McKinnon 250-353-7720
- Large excavator for deeper work:
Ian McKinnon 250-353-7720
Stan Baker 250-353-2267
Bryan MacMillan (YRB 250-353-2453)
Jeff Mattes 250-353-7104
Johnny Command 250-353-9693

Note:

All FCID water users have the phone numbers for Board members and maintenance people. These are included in all notices regularly sent out.

LOCATION OF:

Emergency Response Plan – a copy with all Board members, the Secretary/Treasurer and the Environmental Health Officer

Keys to intake building – Brad Hartland, Alan Davidson, Lance McLaren, David Sheppard

Intake building – drive west on Thompson road, take the first left and drive 150 m to the driveway into the building on the right side.

Map (water distribution system, curb stops and shut-off valve locations) – one with the Chair; one with each maintenance person; one posted inside the intake building.

Tools (set of 3 turn keys) – one set inside the intake building and one set inside Brad Hartland's unlocked garage.

Phoner's lists (includes street addresses) – Anne Tellam, Pat Gibbings, Dan Knight

Email address list – Laurie Hartland, Dan Knight

"Unfit Drinking water" sign is attached. Post if the contamination is from a substance that is not addressed by the standing Boil Water Advisory, i.e. chemicals or any substances other than bacteria.

POSSIBLE EMERGENCY SITUATIONS and ACTION PLANS:

Contamination – *Dead animal in the creek above the intake* (In this case, once the animal is removed, the creek is again “clean”.)

Actions:

- Immediately notify the phoners to call all users. Phoners are to place notes on the doors of users not reached by phone. Inform users of the contamination and warn them that the water is unfit for drinking, cooking or consuming in any way. Also inform users that the water will be shut off for 12 hours to disinfect the system and after that, the usual boil water advisory will remain in effect.
- A follow-up, detailed email should be sent to users and posted at the mailbox, to ensure that information they received by phone is correct and understood.
- Stop water flowing from the creek into the tanks, drain tanks, and disinfect tanks and lines using a 12 hour disinfection procedure.
- Notify users when the system is back to normal operation and remind them to strictly observe the boil water advisory.
- Send water samples in for testing and notify users of the results.

Contamination – *Sample results show high numbers of faecal coliforms or E. coli*

(Interior Health would notify FCID when sample results show high numbers of faecal coliforms or E. coli. In this case, the creek itself is contaminated.)

Actions:

- Immediately notify the phoners to call all users. Phoners are to place notes on the doors of users not reached by phone. Inform users of the contamination and warn them that the water is unfit for drinking, cooking or consuming in any way. Also inform users that water will be shut off for 12 hours to disinfect the system and that the emergency backup pumping system will be used to fill the tanks with water from the lake until samples taken from the creek show no fecal coliforms or E. coli. While on the emergency backup system, users are asked to use water sparingly.
- A follow-up, detailed email should be sent to users and posted at the mailbox, to ensure that information they received by phone is correct and understood, with emphasis on the need for limiting water usage.
- Stop water flowing from the creek into the tanks, drain tanks, and disinfect tanks and lines using a 12 hour disinfection procedure.
- Start the emergency backup pump in the lake to fill the tanks.
- Send creek water samples in for testing. When samples are negative and approval has been obtained from Interior Health, return to using creek water.
- Notify users when the system is back to normal operation and remind them that the boil water advisory remains in effect.

Contamination – Accidental or deliberate (In this case, the creek itself is contaminated and the identity of the contaminant may not immediately be known.)

Actions:

- Immediately notify the phoners to call all users. Phoners are to place notes on doors of users not reached by phone. Inform users of the known or unknown contamination and warn them that the water is unfit for drinking, cooking or consuming in any way and advise them of the action that FCID will be undertaking.
- A follow-up, detailed email should be sent to users and posted at the mailbox, to ensure that information they received by phone is correct and understood. Post the “unfit drinking water” sign.
- Notify Interior Health (see Contacts list above).
- Take action as recommended by Interior Health and contact any other agencies they suggest.
- Once the contaminant has been identified, clean the tanks and lines as recommended. It may be necessary to use the emergency backup pump in the lake until the creek water is considered free of contamination.
- Notify users when the system is back to normal operation and clearance has been obtained from Interior Health. Remind users that the boil water advisory remains in effect.

Contamination – Back siphonage - (In this case, the water distribution system may be contaminated with bacteria or a chemical, but the creek itself is not contaminated.)

Actions:

- Remove source of back siphonage (e.g. open end of a hose left immersed in a trough, pond, hot tub, etc.)
- Immediately notify the phoners to call all users. Phoners are to place notes on doors of users not reached by phone. Inform users of the possible bacterial or chemical contamination and warn them that the water is unfit for drinking or cooking or consuming in any way. Inform them that water will be shut off for 12 hours to disinfect or decontaminate the system and samples will be tested for bacteria and chemical contaminants.
- A follow-up, detailed email should be sent to users and posted at the mailbox, to ensure that information they received by phone is correct and understood. Explain the importance of installing anti-siphon valves on all outside faucets.
- Post the “unfit drinking water” sign.
- Stop water flowing from the creek into the tanks, drain tanks, and disinfect tanks and lines using a 12 hour disinfection procedure. If the contaminant is a chemical, avoid disinfecting with bleach to prevent the formation of dangerous compounds.
- Notify Interior Health (see Contacts list above). If chemical contamination is suspected, use the emergency backup pumping system once the tanks and lines have been cleaned as recommended by Interior Health.

- Send a water sample in for bacterial and chemical testing and inform users of the results as soon as they are available. Remind users that the boil water advisory is always in effect.

Contamination – *Wild fire in the watershed* (In this case, the creek itself could become contaminated if fire retardant chemicals are used to fight the wild fire.)

Actions:

- Contact Interior Health (see Contacts list above).
- Contact BC Government Wildfire Branch (<http://bcwildfire.ca/ContactUs/>) : Wildfire Management Headquarters in Victoria, 250-387-5965 and/or Southeast Fire Centre in Castlegar, 250-365-4040
- Obtain advice from the contacts listed above as to the nature and dangers of the chemical used and what action is required to clear out or neutralize the chemical.
- If advised that the water has become unsafe, notify the phoners to call all users and inform them of the situation, warn them that the water is unfit for drinking, cooking or consuming in any way and advise them of the action that FCID will be undertaking.
- A follow-up, detailed email should be sent to users and posted at the mailbox, to ensure that information they received by phone is correct and understood. Post the “unfit drinking water” sign.
- Take action as recommended by above contacts.
- Notify users when the system is back to normal operation and clearance has been obtained from Interior Health. Remind users that the boil water advisory remains in effect.

Loss of Source – *intake damaged or plugged, creek dried up* (intake damaged or plugged may result from slides above the intake, or debris after heavy rains or runoff)

Actions:

- Determine if the problem can be easily rectified (e.g. by clearing debris from intake). If yes, no further action is required. If the problem cannot be easily and quickly rectified, the emergency backup pump will have to be used.
- Notify the phoners to call all users and inform them of the situation and that the emergency backup pumping system will be used to fill the tanks with water from the lake and to use water sparingly until further notice.
- A follow-up, detailed email should be sent to users and posted at the mailbox, to ensure that information they received by phone is correct and understood, with emphasis on the need for limiting water usage.
- Start the emergency backup pump in the lake to fill the tanks.
- Monitor tank levels and use another pump to fill the tanks directly from the creek, if necessary.
- Return to creek water as soon as intake is cleared or repaired or creek water levels rise.

- Notify users when the system is back to normal operation and remind them that the boil water advisory remains in effect.

Slide above intake – debris in the creek, very high turbidity (may be the result of heavy rains, logging, wildfires, etc. and can result in higher levels of coliform bacteria).

Actions:

- Notify the phoners to call all users and inform them of the situation and that the emergency backup pumping system will be used to fill the tanks with water from the lake and to use water sparingly until further notice.
- A follow-up, detailed email should be sent to users and posted at the mailbox, to ensure that information they received by phone is correct and understood, with emphasis on the need for limiting water usage.
- Contact Interior Health (see Contacts list above).
- Contact BC Ministry of Environment (see Contacts list above).
- Send in water samples for testing.
- Start the emergency backup pump in the lake to fill the tanks.
- Return to creek water as soon as turbidity/debris abates, water samples indicate coliform levels are back to normal and approval has been obtained from Interior Health.
- Notify users when the system is back to normal operation and remind them that the boil water advisory remains in effect.

Broken water line –

Actions:

- Consult the map to locate shut-off valve above the break and shut water off at that point.
- Notify phoners to call all users affected by the water shut off and inform them of the situation.
- Notify Interior Health (see Contacts list above. No construction permit is required to repair leaks, but Interior Health keeps a record of these events.)
- Maintenance people to call an excavator if required, to dig down to the break.

Contact numbers:

Small excavator for near surface work - - Daryl Dertell 250-353-2971;
Ilan McKinnon 250-353-7720.

Large excavator for deeper work –

Ilan McKinnon 250-353-7720;
Stan Baker 250-353-2267; Bryan MacMillan (YRB 250-353-2453);
Jeff Mattes 250-353-7104

- Repair the break.
- Turn water on and check for leaks before back filling.
- Flush out any lines that may have been contaminated with soil.
- Notify users of problem resolution.

FCID water users becoming ill -

Actions: for calls received **only occasionally** from users who wonder if their symptoms may be due to a water-borne pathogen.

- The caller should be advised to use their own judgment as to whether they should seek medical attention or not. Do not offer advice in that regard.
- Ask if they have been boiling water and using it as per FCID instructions.
- The call details must be documented and kept on file.
- Follow up with a call a few days later to inquire as to how they are feeling.

Actions: for calls received from **several people** within the **same time frame**:

- Advise the callers to seek immediate medical attention. Document the details of all calls.
 - Contact Interior Health (see Contacts list above).
 - Alert local physicians if Interior Health advises to do so.
 - Immediately notify the phoners to call all users. Phoners are to place notes on the doors of users not reached by phone. Inform users of the possible contamination and warn them that the water is unfit for drinking, cooking or consuming in any way until further notice. Also inform users that water will be shut off for 12 hours to disinfect the system and that the emergency backup pumping system will be used to fill the tanks with water from the lake until samples taken from the creek show no fecal coliforms or E. coli. While on the emergency backup system, users are asked to use water sparingly.
 - A follow-up, detailed email should be sent to users and posted at the mailbox, to ensure that information they received by phone is correct and understood, with emphasis on the need for limiting water usage.
 - Send samples in for testing.
 - Stop water flowing from the creek into the tanks, drain tanks, and disinfect tanks and lines using a 12 hour disinfection procedure.
 - Start the emergency backup pump in the lake to fill the tanks.
 - When samples are negative and approval has been obtained from Interior Health, return to using creek water.
 - Notify users when the system is back to normal operation and remind them that the boil water advisory remains in effect.
-

WARNING

**THIS WATER IS
CONSIDERED UNFIT
FOR DRINKING OR
DOMESTIC USE**

Fletcher Creek Improvement District